



**BEFORE THE CALIFORNIA PUBLIC UTILITIES COMMISSION
THE CALIFORNIA ENERGY COMMISSION**

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Order Instituting Rulemaking to Implement the
Commission's Procurement Incentive Framework and to
Examine the Integration of Greenhouse Gas Emissions
Standards into Procurement Policies

Rulemaking 06-04-009
(Filed April 13, 2006)

In the Matter of 1990 Electricity Sector Baseline,
Current Entity-Specific GHG Emission Levels and
Policy Issues Related to Allowance Allocation.

Docket 07-OIIP-01

**COMMENTS OF POWEREX CORP.
ON
MARKET ADVISORY COMMITTEE REPORT**

GOODIN, MACBRIDE, SQUERI,
DAY & LAMPREY, LLP
James D. Squeri
505 Sansome Street, Suite 900
San Francisco, CA 94111
Telephone: (415) 392-7900
Facsimile: (415) 398-4321
E-mail: jsqueri@goodinmacbride.com
Attorneys for POWEREX CORP.

Dated: August 6, 2007

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THE CALIFORNIA ENERGY COMMISSION**

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MARKET ADVISORY COMMITTEE REPORT**

In accordance with the procedural schedule set forth in the Administrative Law Judges' Ruling issued in the subject proceeding and dated July 19, 2007, Powerex Corp. ("Powerex") hereby submits its comments on the Market Advisory Committee report entitled "Recommendations for Designing a Greenhouse Gas Cap and Trade System for California."

I. INTRODUCTION

Powerex is the marketing subsidiary of British Columbia Hydro and Power Authority ("BC Hydro"). Powerex sells power at wholesale in the United States pursuant to market-based rate authority granted by the Federal Energy Regulatory Commission, including supply from competitively-priced qualifying renewable (small hydro, biomass and landfill gas) generation facilities. As a likely "first seller" as the term is currently defined in the Market Advisory Committee report, Powerex is pleased to offer its comments on potential designs for a regulatory program to address greenhouse gas (GHG) emissions in the electricity sector, with particular emphasis on the Market Advisory Committee's "first seller" approach for an electricity sector GHG cap-and-trade system.

While Powerex will not address each of the legal, regulatory, market and operational issues associated with the first-seller approach as identified in the Administrative Law Judges' Ruling, it does note its general agreement with the comprehensive comments of the Western Power Trading Forum ("WPTF"). In these comments, Powerex will more narrowly focus on those aspects of the "first seller" approach as applied to imported power in an effort to provide the Commission with specific information from its perspective based upon longstanding experience as an out-of-state supplier of electricity to California.¹

II. COMMENTS

A. BASIC DEFINITIONS

2. For imports, who has ownership of electricity when it enters California? Is the "Purchasing/Selling Entity" (on the North American Electric Reliability Corporation (NERC) E-tag) listed at the first Point of Delivery in California the deliverer/first seller? If this is generally the case, are there any exceptions?

Response: The PSE listed at the first point of delivery into California is the first seller. A more general description of the first seller as an importer would be:

(a) For Non-CAISO imports: The first seller is the PSE associated with first transmission leg inside California on the NERC tag.

(b) For CAISO imports: The first seller is the entity that receives final schedules directly from the CAISO at an MRTU scheduling point.

3. Are there any inter-Balancing Authority imports not accounted for by E-tags? If so, describe these instances and explain how these imports can be accounted for.

¹ While not addressing every issue and question identified in the Administrative Law Judges' Ruling dated July 19, 2007, Powerex's comments will generally follow the topic outline as set forth in that ruling.

Response: To the best of Powerex's knowledge, E-tags account for almost all actual schedules, including circumstances where there are interruptions in flow from transmission cuts.

Inadvertent energy (and the return of inadvertent energy) is not tagged but is a relatively small volume.

4. What agency could/would identify importing contractual parties? Is there already a state or federal official compilation of these market participants?

Response: California balancing authorities receive all the required data to identify importing parties. WECC maintains a list of all PSE's on NERC Tags.

5. Could the deliverer/first-seller be identified by means other than the NERC E-tag? If so, please explain.

Response: The NERC tag is the ideal method for identification of the deliver/first-seller, requiring no double or duplicative counting.

6. How would a deliverer/first-seller system deal with power marketers and brokers?

Response: Power marketers take title to the physical energy when it is imported to the state in the same way that an LSE or non-jurisdictional utility would take title to the energy when it comes into the state.

8. To sum up your answers to the previous questions, provide a succinct but complete definition that identifies, for each way in which electricity could be delivered to the California grid, the entities that would be responsible for compliance with AB 32 regulations under a deliverer/first-seller approach.

Response: To the best of Powerex's knowledge, the precise tagging conventions for MRTU are still being finalized. To clarify, an import is a schedule in which a California balancing authority is the POD (Point of Delivery) on the NERC tag. With respect to a succinct but

complete definition of imports within the context of AB 32 compliance requirements, Powerex recommends the following

(a) For Non-CAISO imports: The first seller is the PSE associated with the first transmission leg inside California on the NERC tag.

(b) For CAISO imports: The first seller is the entity that receives final schedules directly from the CAISO at an MRTU scheduling point.

These definitions will likely correspond to the PSE listed on the NERC tag associated with the first transmission leg inside California, where CAISO is listed as the Transmission Provider (TP), or will be the last PSE appearing immediately upstream of the CAISO's market PSE in the Market Path portion of the NERC tag.

B. General Policy Issues

9. Compare and contrast the environmental integrity of a deliverer/first-seller and a load-based approach. How would a deliverer/first-seller approach address leakage? How would a deliverer/first-seller approach address contract shuffling?

Response: There is little difference between the two methods in addressing contract shuffling and leakage. The risk of contract shuffling and leakage with respect to either or both of the two methods is reduced within a regional framework.

Powerex does believe, however, that the risk of leakage increases commensurate with the extent to which any adopted GHG intensity factor for imports is less closely related to the GHG associated with the specific generation source directly attributable to any particular imported supply.

10. Would the scale of possible emissions leakage or contract shuffling differ under the deliverer/first-seller approach compared to a load-based approach?

Response: Powerex believes that the risks associated with contract shuffling are not affected by the choice between a first seller or load based approach and that the best approach to reducing shuffling is for as much as the region as possible to move toward a common regional market for tracking and management of GHGs.

11. Is there any advantage to applying the deliverer/first- seller approach to reporting only, while having the retail providers be the point of regulation (as with load-based)? Why or why not?

Response: Separating the first seller from the point of regulation clouds the price signals necessary to optimize the supply of clean energy for California or to properly price allowances for energy that is not in compliance. In a market environment where energy markets fluctuate and the allowance market fluctuates, clear price signals need to be available to both buyer and seller to ensure economic efficiency. If buyers were responsible for holding allowances, they would need to rely upon estimates to gauge the carbon emissions associated with energy imports. The scheduling of imports occurs well after pricing decisions have been made. Buyers would likely be faced with buying decisions during the daily pricing cycle well before resource scheduling choices were made.

If first sellers were responsible for compliance and reporting, their resource allocation decisions would reflect the actual pricing of energy and allowances.

18. For those entities participating in the CAISO markets, what would be the likely differential impacts of a deliverer/first-seller versus a load-based system on the CAISO's implementation of the Market Redesign and Technology Update (MRTU) system, including day-ahead and real-time markets for energy, transmission, and reserves?

Response: The differential impacts are unclear to Powerex. Both systems will still rely on NERC tags as the basis for underlying scheduling and reliability.

E. Reporting, Tracking, and Verification

26. What would be the data and administrative requirements of the deliverer/first-seller approach?

Response: The data requirements would be relevant in two areas:

(1) Scheduled Energy – NERC tags are the basis of grid reliability and currently act as a robust system for tracking detailed energy schedules without omissions or double counting. The data requirements to associate energy schedules with particular first sellers would be the NERC tag data from each balancing authority within California.

The data requirements from the NERC tag would include source control area, the consuming control area, the PSE associated with the first transmission leg within California and the actual energy schedules (a record of the energy that was actually scheduled.)

(2) GHG Intensity of Generation – the US EPA maintains a system for tracking the GHG intensity of generation, reported in its eGRID database. eGRID data could be used for the compliance obligation for generators within California. eGRID also contains control area and state level data.

Powerex markets the surplus capacity of BC Hydro's generation system and as such is not regulated or tracked by the US EPA. The near zero carbon energy associated with BC Hydro's system is distinct from the CPUC's estimate (using eGRID data) of the Northwest Power Pool, and is distinct from the other main Non-US member of the Northwest Power Pool (the Alberta Electric System Operator), which is primarily a coal-based thermal system. The GHG impact of power generation is tracked and reported to Environment Canada and would be a verifiable 3rd party source for the GHG intensity of individual control areas within Canada.

Annual intensity factors strike a compromise between accuracy (arguably they are slightly less accurate than marginal intensity factors) and transparency (they are highly transparent and vetted by the EPA on a unit specific basis.) Under the first seller approach, under a broader regional market, many of the accuracy compromises are removed when individual generators are regulated at source.

27. How would the deliverer/first-seller approach relate to the Public Utilities Commission/Energy Commission Staff reporting protocol proposal, *i.e.*, would the deliverer/first-seller approach require modifications to the Staff reporting proposal, or could it serve as an interim reporting protocol? If modifications are required, what exactly would they be?

Response: Regarding the relationship between the first seller approach and the Staff reporting protocol proposal, Powerex offers the following observations:

1. Staff reports based on the carbon intensity of import from the Pacific Northwest based on eGrid data do not take into account the substantial low carbon generation associated with British Columbia's generation system.
2. NERC tags offer a dependable method of calculating actual energy delivered to California.

Reliance on regional average intensity factors or more broadly "non-California" import factors, as recommended under the Staff reporting protocol proposal, would have the undesirable effect of placing all importers, both very low and very high carbon intensity, on the same footing. California load would be sending an inappropriate price signal to its out of state suppliers that it is indifferent to the import of near-zero carbon generation versus relatively high carbon alternatives. Reliance on broad regional factors would combine the negative effects of encouraging clean generators to opt out of the regional average (generator specific intensity factors) and allowing high carbon generators to free ride on the average.

The tools to implement an interim reporting protocol that is superior to simple reliance on broad regional factor exist in a relatively simple form, i.e. the NERC tag and the EPA's eGRID database (or a comparable alternative to those entities not tracked by EPA).

30. Who/what governs access to the purchasing/selling entity data on the NERC E-tags? What would a state agency need to do to obtain access to E-tag data?

Response: NERC and WECC have established guidelines for constructing a NERC tag and designating which parties have rights to populate fields within the NERC tag. In general, the last PSE (purchasing selling entity) is responsible for the production of the NERC tag. The underlying information embodied within the NERC tags is typically subject to confidential treatment and available only those entities that are party to the transaction.

Powerex is not sure what would be required to obtain access to E-tag (NERC tag) data, but it is worthwhile to note that only a limited number of fields within the NERC tag (vs. the entire tag,) would be relevant to the calculation of a GHG liability associated with imports.

31. What role would the CAISO play, if any, in the implementation and administration of a deliverer/first-seller program? What role would other control area operators or balancing authorities play?

Response: The CASIO would play the same role as other balancing authorities within California. For schedules that were consumed within their control areas, they would be responsible for pairing the PSE on the first transmission leg inside California with the source control area associated with the actual energy volume that was imported.

F. GHG Emissions Allowance Allocation Issues

32. Would implementation of a deliverer/first-seller approach necessitate auctioning of GHG emissions allowances? Why or why not?

Response: The implementation of a first seller model would not necessitate auctioning of GHG emission allowances, but a 100% auction would reduce transactional friction for importers bringing energy into California.

H. Relationship to a Multi-State System Such as the Western Regional Climate Action Initiative

36. Compare and contrast the ability of a deliverer/first-seller and a load-based approach to avoid double-counting of emissions between states.

Response: Both approaches manage the problem of double counting equally well if all regions sign on to the same methodology. If different methodologies are adopted within the region there is a high likelihood for double counting.

37. How should exports from California be handled under a deliverer/first-seller approach? Would the proper treatment of exports depend on whether the receiving state has a cap-and-trade system? If so, how?

Response: The GHGs associated with exports from California would be regulated at source under a first seller approach. Proper treatment of exports depends on whether or not the importing state has a system that tracks and regulates GHGs in the power sector from imports, independent of whether or not the state has a cap-and-trade or some other system. The importing state would need to recognize the California export as “compliant” in order to avoid double counting.

III. CONCLUSION

Powerex appreciates the opportunity to provide comments to the CPUC and CEC and looks forward to future participation in the subject proceeding with respect to issues identified in the ALJs; Ruling, including flexible compliance and allocation of GHG emission allowances.

Respectfully submitted this 6th day of August, 2007 at San Francisco, California.

GOODIN, MACBRIDE, SQUERI,
DAY & LAMPREY, LLP
James D. Squeri
505 Sansome Street, Suite 900
San Francisco, California 94111
Telephone: (415) 392-7900
Facsimile: (415) 398-4321
E-mail: jsqueri@goodinmacbride.com

By /s/ James D. Squeri
James D. Squeri

Attorneys for POWEREX CORP.

CERTIFICATE OF SERVICE

I, Lisa Vieland, certify that I have on this 6th day of August 2007 caused a copy of the foregoing

COMMENTS OF POWEREX CORP. ON MARKET ADVISORY COMMITTEE REPORT

to be served on all known parties to R.06-04-009 listed on the most recently updated service list available on the California Public Utilities Commission website and in Docket 07-OIIP-01 at the California Energy Commission, via email to those listed with email and via U.S. mail to those without email service. I also caused courtesy copies to be delivered as follows:

Via Hand Delivery

Commissioner, President Michael R. Peevey
California Public Utilities Commission
State Building, Room 5218
505 Van Ness Avenue
San Francisco, CA 94102

Via Hand Delivery

ALJ Charlotte TerKeurst
California Public Utilities Commission
State Building, Room 5117
505 Van Ness Avenue
San Francisco, CA 94102

Via Hand Delivery

ALJ Jonathan Lakritz
California Public Utilities Commission
State Building, Room 5020
505 Van Ness Avenue
San Francisco, CA 94102

Via Hand Delivery

ALJ Meg Gottstein
California Public Utilities Commission
State Building, Room 2106
505 Van Ness Avenue
San Francisco, CA 94102

Via Overnight Mail

California Energy Commission
Docket Office, MS-4
Re: Docket No. 07-OIIP-01 1516 Ninth Street
Sacramento, CA 95814-5512

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct. Executed this 6th day of August 2007 at San Francisco, California.

/s/ Lisa Vieland
Lisa Vieland

Service List R. 06-04-009
Last Updated 8-3-07

STEVEN S. SCHLEIMER
steven.schleimer@barclayscapital.com

STEVEN HUHMAN
steven.huhman@morganstanley.com

RICK C. NOGER
rick_noger@praxair.com

KEITH R. MCCREA
keith.mccrea@sablax.com

ADAM J. KATZ
ajkatz@mwe.com

CATHERINE M. KRUPKA
ckrupka@mwe.com

LISA M. DECKER
lisa.decker@constellation.com

CATHY S. WOOLLUMS
cswoollums@midamerican.com

KEVIN BOUDREAUX
kevin.boudreaux@calpine.com

THOMAS DILL
trdill@westernhubs.com

E.J. WRIGHT
ej_wright@oxy.com

PAUL M. SEBY
pseby@mckennalong.com

TIMOTHY R. ODIL
todil@mckennalong.com

STEPHEN G. KOERNER, ESQ.
steve.koerner@elpaso.com

JENINE SCHENK
jenine.schenk@apses.com

JOHN B. WELDON, JR.
jbw@slwplc.com

KELLY BARR
kelly.barr@srpnet.com

STEVEN S. MICHEL
smichel@westernresources.org

ROGER C. MONTGOMERY
roger.montgomery@swgas.com

RONALD F. DEATON
ron.deaton@ladwp.com

SID NEWSOME
snewsom@semprautilities.com

DAVID L. HUARD
dhuard@manatt.com

CURTIS L. KEBLER
curtis.kebler@gs.com

DENNIS M.P. EHLING
dehling@kling.com

GREGORY KOISER
gregory.koiser@constellation.com

NORMAN A. PEDERSEN
npedersen@hanmor.com

MICHAEL MAZUR
mmazur@3phases.com

TIFFANY RAU
tiffany.rau@bp.com

GREGORY KLATT
klatt@energyattorney.com

MAUREEN LENNON
maureen@lennonassociates.com

RICHARD HELGESON
rhelgeson@scppa.org

DANIEL W. DOUGLASS
douglass@energyattorney.com

PAUL DELANEY
pssed@adelphia.net

AKBAR JAZAYEIRI
akbar.jazayeri@sce.com

ANNETTE GILLIAM
annette.gilliam@sce.com

CATHY A. KARLSTAD
cathy.karlstad@sce.com

LAURA I. GENAO
Laura.Genao@sce.com

RONALD MOORE
rkmoore@gswater.com

DON WOOD
dwood8@cox.net

AIMEE M. SMITH
amsmith@sempra.com

ALLEN K. TRIAL
atrial@sempra.com

ALVIN PAK
apak@sempraglobal

DAN HECHT
dhecht@sempratrading.com

DANIEL A. KING
daking@sempra.com

SYMONE VONGDEUANE
svongdeuane@semprasolutions.com

THEODORE ROBERTS
troberts@sempra.com

DONALD C. LIDDELL, P.C.
liddell@energyattorney.com

MARCIE MILNER
marcie.milner@shell.com

REID A. WINTHROP
rwinthrop@pilotpowergroup.com

THOMAS DARTON
tdarton@pilotpowergroup.com

STEVE RAHON
lschavrien@semprautilities.com

GLORIA BRITTON
GloriaB@anzaelectric.org

LYNELLE LUND
llund@commerceenergy.com

TAMLYN M. HUNT
thunt@cecmail.org

JEANNE M. SOLE
jeanne.sole@sfgov.org

JOHN P. HUGHES
john.hughes@sce.com

LAD LORENZ
llorenz@semprautilities.com

MARCEL HAWIGER
marcel@turn.org

NINA SUETAKE
nsuetake@turn.org

Diana L. Lee
dil@cpuc.ca.gov

F. Jackson Stoddard
fjs@cpuc.ca.gov

AUDREY CHANG
achang@nrdc.org

EVELYN KAHL
ek@a-klaw.com

MICHAEL P. ALCANTAR
mpa@a-klaw.com

SEEMA SRINIVASAN
sls@a-klaw.com

WILLIAM H. CHEN
bill.chen@constellation.com

BRIAN K. CHERRY
bk7@pge.com

EDWARD G POOLE
epoole@adplaw.com

ANN G. GRIMALDI
agrimaldi@mckennalong.com

BRIAN T. CRAGG
bcragg@goodinmacbride.com

JAMES D. SQUERI
jsqueri@gmssr.com

JEANNE B. ARMSTRONG
jarmstrong@gmssr.com

KAREN BOWEN
kbowen@winston.com

LISA A. COTTLE
lcottle@winston.com

SEAN P. BEATTY
sbeatty@cwclaw.com

JOSEPH M. KARP
jkarp@winston.com

JEFFREY P. GRAY
jeffgray@dwt.com

CHRISTOPHER J. WARNER
cjw5@pge.com

SARA STECK MYERS
ssmyers@att.net

LARS KVALE
lars@resource-solutions.org

ANDREA WELLER
aweller@sel.com

JENNIFER CHAMBERLIN
jchamberlin@strategicenergy.com

BETH VAUGHAN
beth@beth411.com

KERRY HATTEVIK
kerry.hattevik@mirant.com

AVIS KOWALEWSKI
kowalewskia@calpine.com

WILLIAM H. BOOTH
wbooth@booth-law.com

J. ANDREW HOERNER
hoerner@redefiningprogress.org

JANILL RICHARDS
janill.richards@doj.ca.gov

CLIFF CHEN
cchen@ucsusa.org

GREGG MORRIS
gmorris@emf.net

R. THOMAS BEACH
tomb@crossborderenergy.com

BARRY F. MCCARTHY
bmcc@mccarthy.com

C. SUSIE BERLIN
sberlin@mccarthy.com

MIKE LAMOND
anginc@goldrush.com

JOY A. WARREN
joyw@mid.org

BALDASSARO DI CAPO
California Independent System Operator
151 BLUE RAVINE ROAD
FOLSOM, CA 95630

JOHN JENSEN
jjensen@kirkwood.com

MARY LYNCH
mary.lynych@constellation.com

LEONARD DEVANNA
lrdevanna-rf@cleanenergysystems.com

ANDREW BROWN
abb@eslawfirm.com

BRUCE MCLAUGHLIN
mclaughlin@braunlegal.com

GREGGORY L. WHEATLAND
glw@eslawfirm.com

JANE E. LUCKHARDT
jluckhardt@downeybrand.com

JEFFERY D. HARRIS
jdh@eslawfirm.com

VIRGIL WELCH
vwelch@environmentaldefense.org

WILLIAM W. WESTERFIELD, 111
www@eslawfirm.com

DOWNEY BRAND
JANE E. LUCKHARDT
Sacramento Municipal
555 CAPITOL MALL, 10TH FLOOR
SACRAMENTO, CA 95814-4686

RAYMOND J. CZAHAR, C.P.A.
westgas@aol.com

STEVEN M. COHN
scohn@smud.org

ANN L. TROWBRIDGE
atrowbridge@daycartermurphy.com

DAN SILVERIA
dansvec@hdo.net

JESSICA NELSON
notice@psrec.coop

DONALD BROOKHYSER
deb@a-klaw.com

CYNTHIA SCHULTZ
cynthia.schultz@pacificcorp.com

KYLE L. DAVIS
kyle.l.davis@pacificcorp.com

RYAN FLYNN
ryan.flynn@pacificcorp.com

TARA KNOX
AVISTA CORPORATION
PO BOX 3727
SPOKANE, WA 99220

IAN CARTER
carter@ieta.org

JASON DUBCHAK
jason.dubchak@niskags.com

BRIAN M. JONES
bjones@mjbardley.com

KENNETH A. COLBURN
kcolburn@symbioticstrategies.com

RICHARD COWART
rapcowart@aol.com

KATHRYN WIG
Kathryn.Wig@nrgenergy.com

SAKIS ASTERIADIS
sasteriadis@apx.com

GEORGE HOPLEY
george.hopley@barcap.com

ELIZABETH ZELLJADT
ez@pointcarbon.com

DALLAS BURTRAW
burtraw@rff.org

VERONIQUE BUGNION
vb@pointcarbon.com

KYLE D. BOUDREAU
kyle_boudreaux@fpl.com

ANDREW BRADFORD
andrew.bradford@constellation.com

GARY BARCH
gbarch@knowledgeinenergy.com

RALPH E. DENNIS
ralph.dennis@constellation.com

SAMARA MINDEL
smindel@knowledgeinenergy.com

BARRY RABE
brabe@umich.edu

BRIAN POTTS
bpotts@foley.com

JAMES W. KEATING
james.keating@bp.com

JAMES ROSS
jimross@r-c-s-inc.com

TRENT A. CARLSON
tcarlson@reliant.com

GARY HINNERS
ghinners@reliant.com

JULIE L. MARTIN
julie.martin@bp.com

FIJI GEORGE
fiji.george@elpaso.com

ED CHIANG
echiang@elementmarkets.com

NADAV ENBAR
nenbar@energy-insights.com

NICHOLAS LENSSEN
nlenssen@energy-insights.com

ELIZABETH BAKER
bbaker@summitblue.com

WAYNE TOMLINSON
william.tomlinson@elpaso.com

KEVIN J. SIMONSEN
kjsimonsen@ems-ca.com

PHILIP D. LUSK
plusk@wecc.biz

SANDRA ELY
Sandra.ely@state.nm.us

BRIAN MCQUOWN
bmcquown@reliant.com

DOUGLAS BROOKS
dbrooks@nevap.com

ANITA HART
anita.hart@swgas.com

RANDY SABLE
randy.sable@swgas.com

BILL SCHRAND
bill.schrand@swgas.com

JJ PRUCNAL
jj.prucnal@swgas.com

MERIDITH J. STRAND
meridith.strand@swgas.com

CYNTHIA MITCHELL
ckmitchell1@sbcglobal.net

CHRISTOPHER A. HILEN
chilen@sppc.com

ELENA MELLO
emello@sppc.com

TREVOR DILLARD
tdillard@sierrapacific.com

DARRELL SOYARS
dsoyars@sppc.com

FRANK LUCHETTI
fluchetti@ndep.nv.gov

LEILANI JOHNSON KOWAL
leilani.johnson@ladwp.com

RANDY S. HOWARD
randy.howard@ladwp.com

ROBERT L. PETTINATO
robert.pettinato@ladwp.com

HUGH YAO
hyao@semprautilities.com

RASHA PRINCE
rprince@semprautilities.com

RANDALL W. KEEN
rkeen@manatt.com

S. NANCY WHANG
nwhang@manatt.com

PETER JAZAYERI
pjazayeri@stroock.com

DEREK MARKOLF
derek@climateregistry.org

HARVEY EDER
harveyederpspc.org@hotmail.com

STEVE ENDO
sendo@ci.pasadena.ca.us

STEVEN G. LINS
slins@ci.glendale.ca.us

TOM HAMILTON
THAMILTON5@CHARTER.NET

BRUNO JEIDER
bjeider@ci.burbank.ca.us

ROGER PELOTE
roger.pelote@williams.com

AIMEE BARNES
aimee.branes@ecosecurities.com

CASE ADMINISTRATION
case.admin@sce.com

TIM HEMIG
tim.hemig@nrgenergy.com

BARRY LOVELL
bjl@bry.com

ALDYN HOEKSTRA
aldyn.hoekstra@paceglobal.com

YVONNE GROSS
ygross@sempraglobal.com

JOHN LAUN
jlaun@apogee.net

KIM KIENER
kмкиener@fox.net

SCOTT J. ANDERS
scottanders@sandiego.edu

JOSEPH R. KLOBERDANZ
jkloberdanz@semprautilities.com

ANDREW MCALLISTER
andrew.mcallister@energycenter.org

JACK BURKE
jack.burke@energycenter.org

JENNIFER PORTER
jennifer.porter@energycenter.org

SEPHRA A. NINOW
sephra.ninow@energycenter.org

JOHN W. LESLIE
jleslie@luce.com

ORLANDO B. FOOTE, III
ofoote@hkcf-law.com

ELSTON K. GRUBAUGH
ekgrubaugh@iid.com

JAN PEPPER
pepper@cleanpowermarkets.com

GLORIA D. SMITH
gsmith@adamsbroadwell.com

MARC D. JOSEPH
mdjoseph@adamsbroadwell.com

DIANE I. FELLMAN
diane_fellman@fpl.com

HAYLEY GOODSON
hayley@turn.org

MATTHEW FREEDMAN
freedman@turn.org

MICHEL FLORIO
mflorio@turn.org

DAN ADLER
Dan.adler@calcef.org

MICHAEL A. HYAMS
mhyams@sewater.org

THERESA BURKE
tburke@sewater.org

NORMAN J. FURUTA
norman.furuta@navy.mil

AMBER MAHONE
amber@ethree.com

ANNABELLE MALINS
annabelle.malins@fco.gov.uk

DEVRA WANG
dwang@nrdc.org

ERIC WANLESS
ewanless@nrdc.org

KAREN TERRANOVA
filings@a-klaw.com

NORA SHERIFF
nes@a-klaw.com

OLOF BYSTROM
obystrom@cera.com

SETH HILTON
sdhilton@stoel.com

SHERYL CARTER
scarter@nrdc.org

ASHLEE M. BONDS
abonds@thelen.com

CARMEN E. BASKETTE
cbaskette@enernoc.com

COLIN PETHERAM
colin.petheram@att.com

JAMES W. TARNAGHAN
jwmctarnaghan@duanemorris.com

KEVIN FOX
kfox@wsgr.com

KHURSHID KHOJA
kkhoja@thelenreid.com

CALIFORNIA ENERGY MARKETS
cem@newsdata.com

HOWARD V. GOLUB
hgolub@nixonpeabody.com

JANINE L. SCANCARELLI
jscancarelli@flk.com

JOSEPH F. WIEDMAN
jwiedman@goodinmacbride.com

MARTIN A. MATTES
mmattes@nossaman.com

JEN MCGRAW
jen@cnt.org

LISA WEINZIMER
lisa_weinzimer@platts.com

STEVEN MOSS
steven@moss.net

SHAUN ELLIS
sellis@fypower.org

ARNO HARRIS
arno@recurrentenergy.com

ED LUCHA
ELL5@pge.com

GRACE LIVINGSTON-NUNLEY
gxl2@pge.com

JASMIN ANSAR
jxa2@pge.com

JONATHAN FORRESTER
JDF1@PGE.COM

SEBASTIEN CSAPO
sscb@pge.com

SOUMYA SASTRY
svs6@pge.com

STEPHANIE LA SHAWN
S1L7@pge.com

VALERIE J. WINN
vjw3@pge.com

KARLA DAILEY
karla.dailey@cityofpaloalto.org

FARROKH ALBUYEH
farrokh.albuyeh@oati.net

GREG BLUE
greg.blue@sbcglobal.net

DEAN R. TIBBS
dtibbs@aes4u.com

JEFFREY L. HAHN
jhahn@covantaenergy.com

ANDREW J. VAN HORN
andy.vanhorn@vhcenergy.com

SUE KATELEY
info@calseia.org

JOSEPH M. PAUL
Joe.paul@dynegy.com

MONICA A. SCHWEBS, ESQ.
monica.schwebs@bingham.com

PETER W. HANSCHEN
phansch@mofo.com

JOSEPH HENRI
josephhenri@hotmail.com

PATRICIA THOMPSON
pthompson@summitblue.com

WILLIAM F. DIETRICH
dietrichlaw2@earthlink.net

BETTY SETO
Betty.Seto@kema.com

GERALD L. LAHR
JerryL@abag.ca.gov

JODY S. LONDON
jody_london_consulting@earthlink.net

STEVEN SCHILLER
steve@schiller.com

MRW & ASSOCIATES, INC.
mrw@mrwassoc.com

REED V. SCHMIDT
rschmidt@bartlewells.com

ADAM BRIONES
adamb@greenlining.org

CLYDE MURLEY
clyde.murley@comcast.net

BRENDA LEMAY
brenda.lemay@horizonwind.com

CARLA PETERMAN
carla.peterman@gmail.com

EDWARD VINE
elvine@lbl.gov

RYAN WISER
rhwis@lbl.gov

CHRIS MARNAY
C_Marnay@1b1.gov

PHILLIP J. MULLER
philm@scdenergy.com

RITA NORTON
rita@ritanortonconsulting.com

CARL PECHMAN
cpechman@powereconomics.com

KENNY SWAIN
kswain@powereconomics.com

MAHLON ALDRIDGE
emahlon@ecoact.org

RICHARD SMITH
richards@mid.org

CHRISTOPHER J. MAYER
chrism@mid.org

ROGER VAN HOY
rogerv@mid.org

WES MONIER
fwmonier@tid.org

BARBARA R. BARKOVICH
brbarkovich@earthlink.net

JOHN R. REDDING
johnredding@earthlink.net

CLARK BERNIER
clark.bernier@rlw.com

RICHARD MCCANN, PH.D
rmccann@umich.edu

CAROLYN M. KEHREIN
cmkehrein@ems-ca.com

CALIFORNIA ISO
e-recipient@caiso.com

GRANT ROSENBLUM, ESQ.
grosenblum@caiso.com

KAREN EDSON
151 BLUE RAVINE ROAD
FOLSOM, CA 95630

ROBIN SMUTNY-JONES
rsmutny-jones@caiso.com

SAEED FARROKHPAY
saeed.farrokhpay@ferc.gov

DAVID BRANCHCOMB
david@branchcomb.com

KIRBY DUSEL
kdusel@navigantconsulting.com

GORDON PICKERING
gpickering@navigantconsulting.com

LAURIE PARK
lpark@navigantconsulting.com

DAVID REYNOLDS
davidreynolds@ncpa.com

SCOTT TOMASHEFSKY
scott.tomashefsky@ncpa.com

ELLEN WOLFE
ewolfe@resero.com

AUDRA HARTMANN
Audra.Hartmann@Dynegy.com

CURT BARRY
curt.barry@iwpnews.com

DAVID L. MODISETTE
dave@ppallc.com

MICHAEL WAUGH
AIR RESOURCES BOARD
1001 10TH STREET
SACRAMENTO, CA 95814

PATRICK STONER
pstoner@lgc.org

RACHEL MCMAHON
rachel@ceert.org

WEBSTER TASAT
wtasat@arb.ca.gov

STEVEN KELLY
steven@iepa.com

EDWARD J. TIEDEMANN
etiedemann@kmtg.com

JOSHUA BUSHINSKY
bushinskyj@pewclimate.org

LYNN HAUG
lmh@eslawfirm.com

OBADIAH BARTHOLOMY
obarto@smud.org

BUD BEEBE
bbeebe@smud.org

BALWANT S. PUREWAL
bpurewal@water.ca.gov

DOUGLAS MACMULLLEN
dmacmll@water.ca.gov

KAREN NORENE MILLS
kmills@cbbf.com

KAREN LINDH
karen@klindh.com

ELIZABETH W. HADLEY
ehadley@reupower.com

DENISE HILL
Denise_Hill@transalta.com

ANNIE STANGE
sas@a-klaw.com

ELIZABETH WESTBY
egw@a-klaw.com

ALEXIA C. KELLY
akelly@climatetrust.org

ALAN COMNES
alan.comnes@nrgenergy.com

KYLE SILON
kyle.silon@ecosecurities.com

CATHIE ALLEN
californiadockets@pacificcorp.com

PHIL CARVER
Philip.H.Carver@state.or.us

SAM SADLER
samuel.r.sadler@state.or.us

LISA SCHWARTZ
lisa.c.schwartz@state.or.us

CLARE BREIDENICH
cbreidenich@yahoo.com

DONALD SCHOENBECK
dws@r-c-s-inc.com

JESUS ARREDONDO
jesus.arredondo@nrgenergy.com

KAREN MCDONALD
karen.mcdonald@powerex.com

James Loewen
loe@cpuc.ca.gov

Andrew Campbell
agc@cpuc.ca.gov

Anne Gillette
aeg@cpuc.ca.gov

Charlotte TerKeurst
cft@cpuc.ca.gov

Christine S. Tam
tam@cpuc.ca.gov

Donald R. Smith
dsh@cpuc.ca.gov

Ed Moldavsky
edm@cpuc.ca.gov

Eugene Cadenasso
cpe@cpuc.ca.gov

Harvey Y. Morris
hym@cpuc.ca.gov

Jaclyn Marks
jm3@cpuc.ca.gov

Jacqueline Greig
jnm@cpuc.ca.gov

Jamie Fordyce
jbf@cpuc.ca.gov

Jason R. Salmi Klotz
jk1@cpuc.ca.gov

George S. Tagnipes
jst@cpuc.ca.gov

Joel T. Perlstein
jtp@cpuc.ca.gov

Jonathan Lakritz
jol@cpuc.ca.gov

Judith Ikle
jci@cpuc.ca.gov

Julie A. Fitch
jf2@cpuc.ca.gov

Kristin Ralff Douglas
krd@cpuc.ca.gov

Lainie Motamedi
lrm@cpuc.ca.gov

Matthew Deal
mjd@cpuc.ca.gov

Meg Gottstein
meg@cpuc.ca.gov

Nancy Ryan
ner@cpuc.ca.gov

Pamela Wellner
pw1@cpuc.ca.gov

Paul S. Phillips
psp@cpuc.ca.gov

Pearlie Sabino
pzs@cpuc.ca.gov

Rahmon Momoh
rmm@cpuc.ca.gov

Richard A. Myers
ram@cpuc.ca.gov

Sara M. Kamins
smk@cpuc.ca.gov

Scott Murtishaw
sgm@cpuc.ca.gov

Sean A. Simon
svn@cpuc.ca.gov

Steve Roscow
scr@cpuc.ca.gov

Theresa Cho
tcx@cpuc.ca.gov

BILL LOCKYER
ken.alex@doj.ca.gov

KEN ALEX
ken.alex@doj.ca.gov

JUDITH B. SANDERS
jsanders@caiso.com

JULIE GILL
jgill@caiso.com

MARY MCDONALD
DIRECTOR OF STATE AFFAIRS
CALIFORNIA INDEPENDENT SYSTEM
OPERATOR
CAISO
151 BLUE RAVINE ROAD
FOLSOM, CA 95630

PHILIP D. PETTINGILL
ppettingill@caiso.com

MICHAEL SCHEIBLE
mscheibl@arb.ca.gov

MEG GOTTSTEIN
gottstein@volcano.net

PAM BURMICH
pburmich@arb.ca.gov

B. B. BLEVINS
bblevins@energy.state.ca.us

DARYL METZ
dmetz@energy.state.ca.us

DEBORAH SLON
deborah.slon@doj.ca.gov

Don Schultz
dks@cpuc.ca.gov

KAREN GRIFFIN
kgriffin@energy.state.ca.us

LISA DECARLO
ldecarlo@energy.state.ca.us

MARC PRYOR
mpryor@energy.state.ca.us

MICHELLE GARCIA
mgarcia@arb.ca.gov

PIERRE H. DUVAIR
pduvair@energy.state.ca.us

Wade McCartney
wsm@cpuc.ca.gov

ANDREW ULMER
aulmer@water.ca.gov

CAROL J. HURLOCK
hurlock@water.ca.gov

HOLLY B. CRONIN
hcronin@water.ca.gov

docket@energy.state.ca.us

kgriffin@energy.state.ca.us

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